

Tennessee Valley Authority, 714 Swan Pond Road, Harriman, Tennessee 37748

February 24, 2021

Joshua Frazier
TDEC – KEFO, Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921
DWRWater.Compliance@tn.gov; joshua.fraizer@tn.gov

Dear Mr. Frazier:

TENNESSEE VALLEY AUTHORITY (TVA) - KINGSTON FOSSIL PLANT - TENNESSEE MULTI-SECTOR GENERAL PERMIT FOR INDUSTRIAL ACTIVITY - TNR051787 - ANNUAL STORMWATER MONITORING REPORT - 2021

Enclosed is the analytical and Annual Storm Water Monitoring Report for Kingston and a table summarizing the samples collected in 2021. There was no sample collected at F22 as there was no flow.

Outfall Number	Total Iron (mg/l)	TSS (mg/l)
Cut-off Concentration	5.0 mg/L	150 mg/L
F6A	0.656	NA
F7	0.278	NA
F13B	0.272	NA
F15B	0.0725	NA
F16	0.266	NA
F17A	0.283	NA
F17C	0.280	NA
F18	0.273	NA
F19A	0.0807	6.10
F20	3.31	115
F21	0.0714	3.90
F22		
F23	0.278	20.4
F24	1.23	12.2

If you have any questions about this report, please contact Adele Dennison at (865) 717-2157.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Sincerely,

Timothy D. Jackson Plant Manager

TVA - Kingston Fossil Plant

TDJ:amd Page 2

Enclosures

cc: Natalie Harris

DWRWater.Compliance@tn.gov

Brad Love, BR 4A-C.

ECM Plant file



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2021	Outfall Number: F6A
List all TMSP sectors which apply to discharge from this outfall: O	Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Angline Amagan Calaba	Cut-off	Annual
Parameter	Conc.	Sample
Agent and ad Transport of the P	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	9
Arsenic, Total	0.16854	2 1
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	
Cyanide, Total	0.064	11 12
Fluoride	1.8	7
Iron, Total	5.0	0.656
Lead, Total	0.15	

manana Magazara adam	Cut-off	Annual
Parameter (continued)	Conc.	Sample
(100103703)	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	1
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	11
Phosphorus, Total (as P)	2.0	1 12 7
Selenium, Total	0.2385	
Silver, Total	0.032	1
Total Suspended Solids	150	
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	June Hille Jacks	2-24-2021
Printed Name	Official Title	Signature	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the

TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Number: TNR051787
Number: 865-717-2157
Number: F7
Date: 2/11/2021
_

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Testi	Cut-off	Annual
Parameter	Conc.	Sample
Submission Children Inc.	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	- 33 - 11 - 18 -
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	of Approximation
Copper, Total	0.018	e prex.)
Cyanide, Total	0.064	11 12 11 h 6.
Fluoride	1.8	2413/35/00
Iron, Total	5.0	0.278
Lead, Total	0.15	5.0

menine Vancie on wire out	Cut-off	Annual
Parameter (continued)	Conc.	Sample
Free de la constante de la con	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	1.
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	
Phosphorus, Total (as P)	2.0	1 2 2
Selenium, Total	0.2385	d to the
Silver, Total	0.032	
Total Suspended Solids	150	
Zinc, Total	0.395	

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Timothy D. Jackson	Plant Manager	Dimetrus ack	2-24-2021	
Printed Name	Official Title	Signature	Date	



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the **TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)**

Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2021	Outfall Number: F13B
List all TMSP sectors which apply to discharge from this outfall: O	Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Acadiminates to the	Cut-off	Annual
Parameter	Conc.	Sample
The second section of the second seco	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	1114-1
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	The state of
Cyanide, Total	0.064	111 1 152
Fluoride	1.8	
Iron, Total	5.0	0.272
Lead, Total	0.15	

namo tromo valoura enta	Cut-off	Annual
Parameter (continued)	Conc.	Sample
- francisc term	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	1,0
Nickel, Total	0.875	12
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
рН	5.0-9.0	-
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	22911
Silver, Total	0.032	
Total Suspended Solids	150	
Zinc, Total	0.395	

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Timothy D. Jackson	Plant Manager	Direction action	2-24-2021
Printed Name	Official Title	Signature	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the **TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)**

Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2021	Outfall Number: F15B
List all TMSP sectors which apply to discharge from this outfall: O	Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

See to the second second second	Cut-off	Annual
Parameter	Conc.	Sample
The state of the s	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	11 12 20
BOD, 5-Day	30	3
Cadmium, Total	0.0159	
COD	120	<u> </u>
Copper, Total	0.018	9 1
Cyanide, Total	0.064	= +1
Fluoride	1.8	1 In 1914 - 12
Iron, Total	5.0	0.0725
Lead, Total	0.15	o celle

teen in those a subtant 6.4.	Cut-off	Annual
Parameter (continued)	Conc.	Sample
on other sur	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
рН	5.0-9.0	- 1 M - 1 A
Phosphorus, Total (as P)	2.0	4
Selenium, Total	0.2385	
Silver, Total	0.032	14
Total Suspended Solids	150	Tel.
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	Smithul action	2-24-2021
Printed Name	Official Title	Signature /	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

gston Fossil Plant TMSP Number: TNR051787
Dennison Phone Number: 865-717-2157
or the following calendar year (e.g. 2015): 2021 Outfall Number: F16
h apply to discharge from this outfall: O Sample Date: 2/11/2021
and the first and the first of the corresponding to the contract of the first of the corresponding to the correspo

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

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	Cut-off	Annual
Parameter	Conc.	Sample
The state of the s	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	
Cyanide, Total	0.064	
Fluoride	1.8	
Iron, Total	5.0	0.266
Lead, Total	0.15	

Parameter (continued)	Cut-off Conc.	Annual Sample
rarameter (continued)	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	Result (Hg/L)
Mercury, Total	0.0024	-
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
рН	5.0-9.0	1 1
Phosphorus, Total (as P)	2.0	T: 1 '4' t:
Selenium, Total	0.2385	
Silver, Total	0.032	2 - 45 -
Total Suspended Solids	150	
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Printed Name Official Title Signature Date	Timothy D. Jackson	Plant Manager	Sunohur Lickors	2-24-2021
	Printed Name	Official Title	Signature /	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the **TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)**

Phone Number: 865-717-2157
1 110116 1101115 611 605 7 17 2157
Outfall Number: F17A
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

	Cut-off	Annual
Parameter	Conc.	Sample
Straight City In Section	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	41.8E 3
Arsenic, Total	0.16854	1,000
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	quint .
Copper, Total	0.018	14
Cyanide, Total	0.064	7 == 1" 1 &
Fluoride	1.8	* PASSES V
Iron, Total	5.0	0.283
Lead, Total	0.15	

ranaa Taasa ee salar ah	Cut-off	Annual
Parameter (continued)	Conc.	Sample
month loss	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	3.971 = 11
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	1
Phosphorus, Total (as P)	2.0	9
Selenium, Total	0.2385	1= 11 1
Silver, Total	0.032	THE STATE
Total Suspended Solids	150	44
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	Dimetral packson	2-24-2021
Printed Name	Official Title	Signature /	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the **TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)**

Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2021	Outfall Number: F17C

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

u salamananan - fili sa	Cut-off	Annual
Parameter	Conc.	Sample
	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	To gille
Copper, Total	0.018	12 12 × 12
Cyanide, Total	0.064	7 1 1
Fluoride	1.8	
Iron, Total	5.0	0.280
Lead, Total	0.15	

List all TMSP sectors which apply to discharge from this outfall: O

resones Homei subjekt sid	Cut-off	Annual
Parameter (continued)	Conc.	Sample
was before	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
рН	5.0-9.0	(50)
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	
Silver, Total	0.032	1 1
Total Suspended Solids	150	
Zinc, Total	0.395	

Sample Date: 2/11/2021

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	Dinethy Lackson	2-24-2021
Printed Name	Official Title	Signature	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

TMSP Number: TNR051787
Phone Number: 865-717-2157
Outfall Number: F18
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

to the sign halfs are a title, and	Cut-off	Annual
Parameter	Conc.	Sample
	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	THE STATE OF THE S
Cadmium, Total	0.0159	
COD	120	1 111 1 7
Copper, Total	0.018	30 1111 1117
Cyanide, Total	0.064	g Wrg
Fluoride	1.8	
Iron, Total	5.0	0.273
Lead, Total	0.15	

toes on Bones unbelier of the	Cut-off	Annual
Parameter (continued)	Conc.	Sample
(anytawa	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	MIII
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	1.07
рН	5.0-9.0	
Phosphorus, Total (as P)	2.0	W.
Selenium, Total	0.2385	l l
Silver, Total	0.032	E 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total Suspended Solids	150	ai i
Zinc, Total	0.395	ha ha ku u

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Р	lant Manager	Simothy Il	Jackson	2-24-2021	
Printed Name	_ 0	fficial Title	Signature	7 9	Date	
				/		



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the

TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

TMSP Number: TNR051787
Phone Number: 865-717-2157
Outfall Number: F19A
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

To Produce the Control of the Control	Cut-off	Annual
Parameter	Conc.	Sample
	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	1 - 1
Copper, Total	0.018	
Cyanide, Total	0.064	4
Fluoride	1.8	E FEW LINE
Iron, Total	5.0	0.0807
Lead, Total	0.15	

tereseas the condition of the	Cut-off	Annual
Parameter (continued)	Conc.	Sample
(0-15)	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	p.1 = 0
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	199
рН	5.0-9.0	2 21 2
Phosphorus, Total (as P)	2.0	W
Selenium, Total	0.2385	2 ==1
Silver, Total	0.032	9 - 1 - 1 - 1
Total Suspended Solids	150	6.10
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	Similar Dackson	2-24-2021
Printed Name	Official Title	Signature	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

 $for \ Stormwater \ Discharges \ Associated \ with \ Industrial \ Activity \ under \ the$

TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

TMSP Number: TNR051787
Phone Number: 865-717-2157
Outfall Number: F20
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

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	Cut-off	Annual
Parameter	Conc.	Sample
	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	911,2
Copper, Total	0.018	126 1117
Cyanide, Total	0.064	
Fluoride	1.8	
Iron, Total	5.0	3.31
Lead, Total	0.15	(84%)

nestra dialega perinting ai te	Cut-off	Annual
Parameter (continued)	Conc.	Sample
deports have	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	1 1 1
Nickel, Total	0.875	1 3 7
Nitrate + Nitrite Nitrogen	0.68	1701
Oil and Grease	15	
pH	5.0-9.0	4 1
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	2 14
Silver, Total	0.032	10014
Total Suspended Solids	150	115
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	June History	Jackson	2-24-2021
Printed Name	Official Title	Signature		Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the

TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

TMSP Number: TNR051787
Phone Number: 865-717-2157
Outfall Number: F21
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Control Seasons - Harris	Cut-off	Annual
Parameter	Conc.	Sample
	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	B - 111
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	to program of
Copper, Total	0.018	1 1
Cyanide, Total	0.064	* _ · · · · · · · ·
Fluoride	1.8	
Iron, Total	5.0	0.0714
Lead, Total	0.15	

ne mai lienus sanules al r	Cut-off	Annual
Parameter (continued)	Conc.	Sample
	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	with the
Oil and Grease	15	
рН	5.0-9.0	
Phosphorus, Total (as P)	2.0	pint _e a
Selenium, Total	0.2385	2
Silver, Total	0.032	also 1
Total Suspended Solids	150	3.90
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	Dimethyla action	2-24-2021
Printed Name	Official Title	Signature	Date



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

TMSP Number: TNR051787
Phone Number: 865-717-2157
Outfall Number: F23
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

and is care and a Country	Cut-off	Annual
Parameter	Conc.	Sample
Professional Contraction of	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	lt i or
Arsenic, Total	0.16854	THE SECTION OF THE SE
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	15 11
Copper, Total	0.018	
Cyanide, Total	0.064	
Fluoride	1.8	V 1
Iron, Total	5.0	0.278
Lead, Total	0.15	Las Maria

espera Bourn bermasa sua	Cut-off	Annual
Parameter (continued)	Conc.	Sample
The territory	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	17/17/
Nickel, Total	0.875	Title 1971
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
рН	5.0-9.0	1 1
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	
Silver, Total	0.032	y (**)
Total Suspended Solids	150	20.4
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson Plant Manager	WI Lackson	2-24-2021
Printed Name Official Title Signature	9 / 7	Date

Tennessee Multi-Sector General Permit (TMSP) Annual Stormwater Monitoring Report – Instructions

- 1. The purpose of this form is to report stormwater (SW) monitoring results under the TMSP. Only 1 sample per calendar year is required (except Sectors J and H). For each outfall, one Annual Stormwater Monitoring Report form must be submitted. Grab samples should be collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. A separate form must be submitted for each outfall. If more than one pH sample is collected for any outfall, report all individual pH monitoring results for a given outfall on the corresponding form or in a separate, referenced attachment if necessary. If more than 1 sample for other parameters is collected at any outfall, submit the average results of all monitoring data (for calculating average, use the numerical method detection limit (MDL) if a parameter was not detected). If all monitoring results for a given parameter were non-detect, report the parameter as below detection limit (BDL) and provide the applicable numerical MDL value in parentheses (e.g., BDL (<0.001 mg/L)). New facilities must conduct sampling in the year during which permit coverage was obtained and during each following year. The form(s) shall be submitted 30 days after the sampling results are obtained, but no later than the March 31st of the following calendar year, whichever comes first.
- 2. If the results of annual SW runoff monitoring demonstrates that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Field Office (EFO) in writing within 30 days from the time SW monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time SW monitoring results were received, the facility must review its stormwater pollution prevention plan (SWPPP), make any modifications or additions to the plan which would assist in reducing runoff concentrations to less than the monitoring cut-off concentrations for that parameter, and submit to the local EFO a summary of the proposed SWPPP modifications (including a timetable for implementation).
- 3. Low Concentration Waiver When the average concentration for a pollutant calculated from monitoring data collected from 4 consecutive calendar years of monitoring is less than the cut-off concentration, a facility may waive monitoring requirements in the following annual monitoring period. This form should be used for certification of low concentration waiver provision.

Complete, sign and date this form before it is submitted. Keep a copy of the completed form for your records. The division supports and encourages submission of electronic documents (e.g., scanned reports submitted as PDF files) by using the following dedicated email address: Water.permits@tn.gov. You may also submit the original completed and signed form to the appropriate Environmental Field Office using the addresses below.

EFO	Street Address	City	Zip	Telephone
Chattanooga	1301 Riverfront Parkway, Suite #206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 RS Gass Boulevard	Nashville	37216	(615) 687-7000

Mining and quarrying facilities only (Sectors J and H) should submit one signed copy of Annual Stormwater Monitoring Report to the division's Mining Section at the following address:

Tennessee Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921



William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT

for Stormwater Discharges Associated with Industrial Activity under the **TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)**

Phone Number: 865-717-2157
Outfall Number: F24
Sample Date: 2/11/2021

Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

and the same of the same	Cut-off	Annual
Parameter	Conc.	Sample
	(mg/L)	Result (mg/L)
Aluminum, Total	0.75	
Ammonia	4.0	1001.41
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	ELX LA
Cyanide, Total	0.064	F ₁ =
Fluoride	1.8	a de la
Iron, Total	5.0	1.23
Lead, Total	0.15	

randa Menur Giordia da 1	Cut-off	Annual
Parameter (continued)	Conc.	Sample
Total Control of the	(mg/L)	Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	12.0
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	(1)
Silver, Total	0.032	
Total Suspended Solids	150	12.2
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

Timothy D. Jackson	Plant Manager	Simbled Jackson	2-24-2021
Printed Name	Official Title	Signature	Date



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh 301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Tel: (412)963-7058

Laboratory Job ID: 180-117182-1 Client Project/Site: KIF Stormwater

For:

Tennessee Valley Authority 714 Swan Pond Road Harriman, Tennessee 37748

Attn: Adele Dennison

Hais a chaze

Authorized for release by: 2/22/2021 10:02:38 AM

Gail Lage, Senior Project Manager (615)301-5741
Gail.Lage@Eurofinset.com

LINKS

Review your project results through

Total Access

Have a Question?



Visit us at: www.eurofinsus.com/Env This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

Case Narrative

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

Job ID: 180-117182-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-117182-1

Comments

No additional comments.

Receipt

The samples were received on 2/13/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): F15 (180-117182-1). The container labels list a sample id of F15B, while the COC lists F15. The id on the COC was used.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 180-117182-1

Sample Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Asset ID Lab Sample ID Client Sample ID Matrix Collected Received Water 02/11/21 09:20 02/13/21 10:00 180-117182-1 F15 180-117182-2 Water 02/11/21 09:25 02/13/21 10:00 F23 02/11/21 09:35 02/13/21 10:00 Water 180-117182-3 F16 02/11/21 09:40 02/13/21 10:00 180-117182-4 F13B Water Water 02/11/21 09:45 02/13/21 10:00 180-117182-5 F18 02/11/21 09:53 02/13/21 10:00 Water F7 180-117182-6 02/11/21 09:58 02/13/21 10:00 Water 180-117182-7 F17A 180-117182-8 F17C Water 02/11/21 10:03 02/13/21 10:00 Water 02/11/21 10:10 02/13/21 10:00 180-117182-9 F6A

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

Client Sample ID: F15 Date Collected: 02/11/21 09:20

Lab Sample ID: 180-117182-1

Matrix: Water

Date Received: 02/13/21 10:00

Analyte

Iron

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

0.0725

Result Qualifier

0.0500

MDL Unit mg/L

Analyzed 02/18/21 14:56 Dil Fac Analyst 1 RSK

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Client Sample ID: F23 Date Collected: 02/11/21 09:25 Date Received: 02/13/21 10:00

Job ID: 180-117182-1

Lab Sample ID: 180-117182-2

a	Water	
٠.	rucci	

Ma	atrix:	Water	

	 4
Analyst	5

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst	
Iron	0.278		0.0500		mg/L		02/18/21 15:07	1	RSK	
General Chemistry										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst	
Total Suspended Solids	20.4	5.0 	0.500		mg/L		02/16/21 13:21	1	REI	

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

Client Sample ID: F16

Lab Sample ID: 180-117182-3

Matrix: Water

Date Collected: 02/11/21 09:35 Date Received: 02/13/21 10:00

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

 Analyte
 Result Iron
 Qualifier
 RL O.0500
 MDL Unit mg/L
 D or Description
 Analyzed O.2/18/21 15:11
 Dil Fac RSK
 Analyst RSK

5

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

Client Sample ID: F13B

Lab Sample ID: 180-117182-4

Matrix: Water

Date Collected: 02/11/21 09:40 Date Received: 02/13/21 10:00

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

Welliou. EFA 200.0 K	ev 3 - IVIELAIS (ICETIVI	oj - Iulai K	ecoverable						
Analyte	Result	Qualifier	RL	MDL	Unit		Analyzed	Dil Fac	Anal
Iron	0.272		0.0500		mg/L	T	02/18/21 15:14	1	RSK

5

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Client Sample ID: F18

Iron

Job ID: 180-117182-1

Lab Sample ID: 180-117182-5

Matrix: Water

Date Collected: 02/11/21 09:45 Date Received: 02/13/21 10:00

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

Result Qualifier 0.273

RL 0.0500 MDL Unit mg/L

Analyzed 02/18/21 15:18

Dil Fac Analyst 1 RSK

Client: Tennessee Valley Authority Project/Site: KIF Stormwater Job ID: 180-117182-1

Client Sample ID: F7

Lab Sample ID: 180-117182-6

Matrix: Water

Date Collected: 02/11/21 09:53 Date Received: 02/13/21 10:00

IV

Me	thod: EPA 200.8 Rev 5 - Metals	(ICP/MS	S) - Total Re	coverable							
Ana	ilyte	Result	Qualifier	RL	MDL	Unit	12:11	D	Analyzed	Dil Fac	Analyst
Iror	No. 15 Section 1	0.278		0.0500		mg/L			02/18/21 15:22	1	RSK

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

Client Sample ID: F17A

Iron

Lab Sample ID: 180-117182-7

Matrix: Water

Date Collected: 02/11/21 09:58 Date Received: 02/13/21 10:00

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

Analyte Result Qualifier RL

0.283

RL N

MDL Unit mg/L

 $\frac{D}{02/1}$

Analyzed Dil Fac 02/18/21 15:25 1

Dil Fac Analyst RSK

Client: Tennessee Valley Authority Project/Site: KIF Stormwater Job ID: 180-117182-1

Client Sample ID: F17C Lab Sample ID: 180-117182-8

Date Collected: 02/11/21 10:03 Matrix: Water
Date Received: 02/13/21 10:00

 Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Analyzed
 Dil Fac
 Analyst

 Iron
 0.280
 0.0500
 mg/L
 02/18/21 15:29
 1
 RSK

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

Client Sample ID: F6A

Lab Sample ID: 180-117182-9

Matrix: Water

Date Collected: 02/11/21 10:10 Date Received: 02/13/21 10:00

1.67.17.470.

Method: EPA 200.8 Rev 5 - Met	als (ICP/MS) - Total Re	ecoverable							
Analyte	Result Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst	
Iron	0.656	0.0500		mg/L		02/18/21 15:33	1	RSK	

Accreditation/Certification and Definitions Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117182-1

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Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	02-21-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20 *
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
а	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
.OD	Limit of Detection (DoD/DOE)
_OQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification and Definitions Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Too Numerous To Count

Job ID: 180-117182-1

Glossary (Continued)

TNTC

Abbreviation	These commonly used abbreviations may or may not be present	in this report.	
MDC	Minimum Detectable Concentration (Radiochemistry)	140 HOULT	The second secon
MDL	Method Detection Limit		
ML	Minimum Level (Dioxin)		
MPN	Most Probable Number		
MQL	Method Quantitation Limit		
NC	Not Calculated		
ND	Not Detected at the reporting limit (or MDL or EDL if shown)		
NEG	Negative / Absent		
POS	Positive / Present		
PQL	Practical Quantitation Limit		
PRES	Presumptive		
QC	Quality Control		
RER	Relative Error Ratio (Radiochemistry)		
RL	Reporting Limit or Requested Limit (Radiochemistry)		
RPD	Relative Percent Difference, a measure of the relative difference between	een two points	
TEF	Toxicity Equivalent Factor (Dioxin)	3/4 (314	
TEQ	Toxicity Equivalent Quotient (Dioxin)		
	, — , — , — , — , — , — , — , — , — , —		

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Job ID: 180-117182-1

Method Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Method	Method Description	Protocol	Laboratory
EPA 200.8 Rev 5	Metals (ICP/MS)	EPA	TAL PIT
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PIT
200.8	Preparation, Total Recoverable Metals	EPA	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



TestAmerica Nashville

2960 Foster Creighton Drive Nashville, TN 37204

Chain of Custody Record



Phone (615) 726-0177 Fax (615) 726-0954																	THE LE	ADER IN	ENVIRONM	NIAL TE	STING
Client Information	Sampler:			100	ge,C								racking N 127 392				COC No	7.3	7	119	
Client Contact:	Phone:			E-N	fail:							11000	121 002	- 1			Page:	-			
Adele Dennison Company:	865-717-2072			Ga	il.La	age@	otest	tamer	icainc	.com							1 of 1				
TVA - Kingston Fossil Plant					1					Ana	alvsis	Reque	sted				Job #:	1		- 6	
Address: 714 Swan Pond Road	Due Date Request Standard	ed:					1				Ť	ΓĖ	TI				Preserv	vation Co	des:		
City:	TAT Requested (di	avs):			-	100									ŀ		A - HCL		M - Hexa	ine	
Harriman		Stand	ard				1						1 1	- 1			B - NaO	н	N - None		
State, Zip: TN 37748										-										145	
Phone:	4785770				-	500	1													iO3 i2SO3	
865-717-2072 Email:					- 2		1		1 1)4 Dodecahy	drate
amdennison@tva.gov	WO #:				2	 a) \$2,800 (b) 							180-1	17182	Chain	of Cust	odv			one A	
Project Name: 2021 Stormwater	Project #:				7	10.1							1 1	=	1		1			-5 (specify)	
Site: TVA - Kingston Fossil Plant	SSOW#:				Sample (Y	SD (Yet of No)	Fe									f contail	Other:				
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp,	Matrix (W=water, S=solid, O=waste/oil,	old Filtered	Portin MS/M	200.8 MOD Total Fe	TSS						24 000		Total Number of					10.0
Cample Identification	Sample Date	Time		BT=Tissue, A=A	·)	\downarrow	D/N	_							V	F -	S	pecial I	nstructio	ns/Note	
F15	2/11/21	920	G	w ·	1	N	-	-			-	-	1				-				
F23	2/11/21	925	G	w	+	N	-	-			-		+		+	2					C
F16	2/11/21	935	G	w	+	N	-	-		+						1					115
F13B	2/11/21	940	G	w	1	N	Х			+				3		1					
F18	2/11/21	945	G	w	N	N	x			+			+	3		1	×	_			-
F7	2/11/21	953	G	w	N	N	X							7		1					
F17A	2/11/21	958	G	w	N	N	Х									1	1 3	100			
F17C	2/11/21	1003	G	W	N	N	х							1		1		7			_
F6A	2/11/21	1010	G	w	N	N	Х							3		1	1.8		3		
Possible Hazard Identification			-			Sai	mple	Dis	osal	(A fe	e may	be asse	ssed if	samp	les ar	e retain	ed longe	r than 1	month		
X Non-Hazard Flammable Skin Irritant	Poison B Unkno	wn R	adiological] F	Return	ToC	lient		Dispo	sal By	Lab	X		ive For	· chan	Month	•	
Deliverable Requested: I, II, III, IV, Other (specify)						Spe	ecial	Instr	uction	s/QC I	Require	ments:	Send re	esults	to amo	dennisor	@tva.go	V	WOHAT	3	
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Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh 301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Tel: (412)963-7058

Laboratory Job ID: 180-117181-1 Client Project/Site: KIF Stormwater

For:

Tennessee Valley Authority 714 Swan Pond Road Harriman, Tennessee 37748

Attn: Adele Dennison

Hais a class

Authorized for release by: 2/22/2021 9:51:34 AM

Gail Lage, Senior Project Manager (615)301-5741
Gail.Lage@Eurofinset.com

.....LINKS

Review your project results through

Have a Question?



Visit us at: www.eurofinsus.com/Env This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

Case Narrative

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117181-1

Job ID: 180-117181-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-117181-1

Comments

No additional comments.

Receipt

The samples were received on 2/13/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Eurofins TestAmerica, Pittsburgh

Job ID: 180-117181-1

Sample Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset
180-117181-1	F20	Water	02/11/21 10:17	02/13/21 10:00	
180-117181-2	F24	Water	02/11/21 10:28	02/13/21 10:00	
180-117181-3	F21	Water	02/11/21 10:35	02/13/21 10:00	
180-117181-4	F19A	Water	02/11/21 10:47	02/13/21 10:00	

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117181-1

1 REI

Client Sample ID: F20

Total Suspended Solids

Date Collected: 02/11/21 10:17 Date Received: 02/13/21 10:00 Lab Sample ID: 180-117181-1

02/16/21 13:21

Matrix: Water

x: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Iron	3.31		0.0500		mg/L		02/18/21 14:31	1	RSK
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst

1.25

mg/L

115

Client: Tennessee Valley Authority Project/Site: KIF Stormwater Job ID: 180-117181-1

Ka

Lab Sample ID: 180-117181-2

Vater

Date Collected: 02/11/21 10:28 Date Received: 02/13/21 10:00

Client Sample ID: F24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit		D	Analyzed	Dil Fac	Analyst
Iron	1.23		0.0500		mg/L	9.0	_	02/18/21 14:45	1	RSK
General Chemistry										
Analyte	Result	Qualifier	RL	MDL	Unit		D	Analyzed	Dil Fac	Analyst
Total Suspended Solids	12.2		0.556		mg/L	7	_	02/16/21 13:21	1	REI

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117181-1

Ki

Client Sample ID: F21

Lab Sample ID: 180-117181-3

Matrix: Water

Date Collected: 02/11/21 10:35 Date Received: 02/13/21 10:00

Method: EPA 200.8 Rev 5 - M	etals (ICP/MS) - Total Re	coverable		
Analyte	Result Qualifier	RL	MDL Unit	D

0.0714

 $\begin{array}{c|cccc} \textbf{Unit} & & \textbf{D} & \textbf{Analyzed} & \textbf{Dil Fac} & \textbf{Analyst} \\ \hline mg/L & & 02/18/21 & 14:49 & & 1 & RSK \\ \end{array}$

General Chemistry

Iron

Analyte	Result Qualifier	RL	MDL Unit	D	Analyzed	Dil Fac	Analyst	
Total Suspended Solids	3 00	0.500	ma/l		02/16/21 13:21	1	DEI	_

0.0500

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117181-1

Client Sample ID: F19A

Lab Sample ID: 180-117181-4

Matrix: Water

Date	Collected:	02/11/21	10:47
Date	Received:	02/13/21	10:00

Method: EPA 200.8 Re	v 5 - Metal	s (ICP/MS	S) - Total R	ecoverable						
Analyte		Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Iron	14.5	0.0807		0.0500		mg/L		02/18/21 14:53	1	RSK
General Chemistry										
Analyte		Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Total Suspended Solids		6.10		0.500		mg/L		02/16/21 13:21	1	REI

Accreditation/Certification and Definitions Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Job ID: 180-117181-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program		Identification Number	Expiration Date
Arkansas DEQ	State	1 Darsver	19-033-0	06-27-21
California	State		2891	02-21-21
Connecticut	State		PH-0688	09-30-20 *
Florida	NELAP		E871008	06-30-21
Georgia	State		PA 02-00416	04-30-21
Illinois	NELAP		004375	06-30-21
Kansas	NELAP		E-10350	01-31-22
Kentucky (UST)	State		162013	04-30-21
Kentucky (WW)	State		KY98043	12-31-21
Louisiana	NELAP		04041	06-30-21
Maine	State		PA00164	03-06-22
Minnesota	NELAP		042-999-482	12-31-20 *
Nevada	State		PA00164	07-31-21
New Hampshire	NELAP		2030	04-05-21
New Jersey	NELAP		PA005	06-30-21
New York	NELAP		11182	04-01-21
North Carolina (WW/SW)	State		434	12-31-21
North Dakota	State		R-227	04-30-21
Oregon	NELAP		PA-2151	02-06-22
Pennsylvania	NELAP		02-00416	04-30-21
Rhode Island	State		LAO00362	12-31-21
South Carolina	State		89014	04-30-21
Texas	NELAP		T104704528	03-31-21
US Fish & Wildlife	US Federal Programs		058448	07-31-21
USDA	Federal		P-Soil-01	06-26-22
USDA	US Federal Programs		P330-16-00211	06-26-22
Utah	NELAP		PA001462019-8	05-31-21
Virginia	NELAP		10043	09-14-21
West Virginia DEP	State		142	01-31-22
Wisconsin	State		998027800	08-31-21

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
1	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
IC	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
_OD	Limit of Detection (DoD/DOE)
.OQ	Limit of Quantitation (DoD/DOE)
ИCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification and Definitions Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Quality Control

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

QC

RL RPD

RER

TEQ

TNTC

Job ID: 180-117181-1

Glossary (Continued)

bbreviation	These commonly used abbreviations may or may not be present in this report.			
1DC	Minimum Detectable Concentration (Radiochemistry)			
1DL	Method Detection Limit			
1L	Minimum Level (Dioxin)			
IPN	Most Probable Number			
QL	Method Quantitation Limit			
С	Not Calculated			
D	Not Detected at the reporting limit (or MDL or EDL if shown)			
EG	Negative / Absent			
os	Positive / Present			
QL	Practical Quantitation Limit			
RES	Presumptive			

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Job ID: 180-117181-1

Method Summary

Client: Tennessee Valley Authority Project/Site: KIF Stormwater

Method **Method Description Protocol** Laboratory EPA 200.8 Rev 5 Metals (ICP/MS) **EPA** TAL PIT SM 2540D Solids, Total Suspended (TSS) SM TAL PIT 200.8 Preparation, Total Recoverable Metals

EPA TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TestAmerica Nashville

2960 Foster Creighton Drive Nashville, TN 37204

Chain of Custody Record



Phone (615) 726-0177 Fax (615) 726-0954																			THE LEADER IN	ENVIRONMENTAL TESTING	
Client Information	Sampler:				ab PM: age,Gail								Carrier Tracking No(s): 1103 6127 3921						COC No:		
Client Contact: Adele Dennison	Phone: 865-717-2072				-Mail:							ᅥ							Page:		
Company	003-111-2012					il.Lage@testamericainc.com													1 of 1		
TVA - Kingston Fossil Plant						Analysis								este	d				Job#:		
Address:	Due Date Request	ed:			7						1	3 requested						Preservation Codes:			
714 Swan Pond Road	Standard													1			A - HCL				
City: Harriman	TAT Requested (da	ays): Stand	ard										- 1						B - NaOH	M - Hexane N - None	
State. Zip:	1	Stand	aru											- 1		1			C - Zn Acetate	O - AsNaO2	
TN 37748														1					D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
Phone.	4785770							ı							1				F - MeOH	R - Na2S2SO3	
865-717-2072					<u></u>														G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate	
Email. amdennison@tva.gov	WO #:				N TO	(0)											I - Ice J - DI Water	U - Acetone V - MCAA			
Project Name: 2021 Stormwater	Project #:				Sample (Yes	20.5						1				ainer	containers	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)		
Site: TVA - Kingston Fossil Plant	SSOW#:					SD (Ye	Fe											of cont	Other:		
			Sample	Matrix	Filtered S	MS/M	D Total Fe											Total Number o			
		Cample	Туре	(W=water, S=solid,	Ē	E O	200.8 MOD											ž			
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, BT=Tissue, A=Ai	Field	July	8.00	TSS				- 1	- 1					ota	8		
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Relinquished by: Wm. Joseph Burke	Date/Time: 6/3/20			Company TVA											Date	e/Time:				Company	
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Δ Yes Δ No																					









